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CLAIMS

1. A packaging machine for loading a plurality of articles into a carton which mechanism comprises carton erecting means for part erecting said carton to define a first article receiving cell, means for selecting a group of articles comprising at least two articles, means for separating said grouped articles from an adjacent like group of articles, means for loading said grouped articles into said first article receiving cell through an open end thereof in the packaged carton and a means for completing the construction of the carton characterised in that said carton erecting means comprises complementary die members, each said die member being mounted to a rotating wheel wherein each said complementary die member is adapted to inter engage when a carton blank is positioned between the two members, such that said die members cause the blank to be folded to define said article receiving cells.

2. The packaging machine as claimed in claim 1 wherein said carton erecting means comprises a device which effects a change in configuration of the carton from an inoperative configuration in which said first article receiving cell is formed to receive said grouped articles.

3. The packaging machine as claimed in claim 1 or claim 2 wherein one of said complementary members comprises a protruding portion extending from a working face of the complementary member and wherein the other said complementary member comprises a recessed portion adapted to receive said protruding portion and wherein the blank is placed

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on said receiving member and wherein the protruding portion forces part of the blank into said receiving portion.

4. The packaging machine as claimed in any of claims 1 to 3 wherein said selecting means comprises a plurality of channels mounted on an endless chain which said channels are grouped to correspond to the number of articles to be placed into said first article receiving cell and wherein the channels are adapted to substantially align each said article with said first article receiving cell.

5. The packaging machine as claimed in claim 4 wherein the carton comprises a second article receiving cell formed by said carton erecting means in a spaced relationship to said first article receiving cell wherein said grouped channels comprise at least two channels in substantially parallel relationship to one another wherein said at least two channels are adapted to diverge into a plurality of sub-groups wherein each said sub-group is spaced to 15 align an article held in each said sub-group with one of said article receiving cells.

6. The packaging machine as claimed in any preceding claim further comprising a conveyor including means to convey the articles and means to regulate the flow of articles to enable the articles to be aligned with each said carton.

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7. A method of loading a plurality of articles into a carton whilst the articles and carton are moved in a synchronised manner and in a continuous forward direction comprising the following steps:

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i) transferring carton blank from a stowed position and erecting said blank to form the carton;

ii) selecting a group of articles to be loaded into said carton

iii) synchronously associating an article receiving cell formed from the blank with 5 a given number of said grouped articles by sideways movement of said articles;

iv) transferring said carton and loading said grouped articles into said carton through an open end thereof characterised in that the blank is erected by erecting means comprising complementary die members, each said die member being mounted to a rotating wheel wherein each said complementary die member is adapted to inter engage 10 when a blank is positioned between the two members, such that said die members cause the blank to be folded to define said article receiving cells.

8. A mechanism for forming a carton including a pair of article receiving cells comprising complementary die members, each said die member being mounted to a rotating wheel wherein each said complementary die member is adapted to inter engage when a blank is positioned between the two members, such that said die members cause the blank to be folded to define said article receiving cells.

9. The mechanism as claimed in claim 8 wherein one of said complementary members 20 comprises a protruding portion extending from a working face of the complementary member and wherein the other said complementary member comprises a recessed portion adapted to receive said protruding portion and wherein the blank is placed on said receiving member and wherein the protruding portion forces part of the blank into said receiving portion.

10. A mechanism for grouping a plurality of articles which mechanism comprising an endless series of channels along which articles may be transferred into a plurality of article receiving cells of a carton wherein the channels are organised into groupings whereby each 5 grouping corresponds to a given number of articles to be loaded in the carton.

11. The mechanism as claimed in claim 10 wherein the channels are adapted to be substantially parallel to one another and then diverge into sub-groupings wherein each said sub-group is spaced to align an article held in each said sub-group with one of said article receiving cells corresponding to each one of the cells of each carton and wherein the sub-groupings are each substantially parallel to one to provide in line parallel access to the cells.

12. A mechanism for causing a label affixed to an article to be oriented to a predetermined display position wherein the article includes a portion protruding outwardly of the article in a fixed position relative said label, wherein the mechanism comprises support means adapted to support an article, orientation means adapted to cause the article to rotate in the support means until the protruding position is restrained by abutment means formed in said support means.

20 13. The mechanism as claimed in claim 12 wherein one edge of the label affixed to the article overlays an opposed edge of said label to define said protruding portion.

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14. The mechanism as claimed in claim 12 or claim 13 wherein the support means comprises a channel including a support surface to retain part of the article within said channel.

5 15. The mechanism as claimed in claim 14 wherein said support surface substantially corresponds to the exterior surface of said retained part of the article.

10 16. The mechanism as claimed in any of claims 12 to 15 wherein the orientation means comprises an elongate member connected to resilient means, wherein said elongate member is adapted to abut a portion of said article as said support means is moved in a substantially parallel plane to said elongate member such that a tangential force is applied to said abutting portion of the article to cause the article to rotate.

15 17. The mechanism as claimed in claim 16 wherein said resilient means is adapted to reduce said tangential force when said protruding portion is restrained by said abutment means.

18. The mechanism as claimed in any of claims 12 to 17 wherein the abutment means is formed from an upper edge of said channel.

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19. A packaging machine as claimed in any of claims 1 to 6 further comprising the mechanism of any of claims 12 to 18 to orientate said group of articles prior to loading the articles into the carton.

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20. A method of orienting to a predetermined display position wherein the article includes an outwardly protruding portion in a fixed position relative said label a label affixed to an article which method comprising the steps of supporting the article in support means during forward movement, rotating the article within the support means until the protruding portion abuts a portion of the support means and retaining the article in its desired orientation for loading into a carton.

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21. The method as claimed in claim 7, further comprising the step, prior to step (ii) of orienting a label.

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